

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A power semiconductor module comprising
 - at least one semiconductor chip made of a semiconductor material and having first and a second main electrodes,
 - first and second main connections,
 - a contact lamina in electrical contact with the first main electrode and the first main connection,
 - the contact lamina containing an alloying partner capable of forming a an eutectic between the alloying partner and the semiconductor material,
 - the contact lamina being coated with an electrically conductive protective layer,

wherein

- the protective layer has at least one electrically conductive base layer applied on the contact lamina, and an electrically conductive surface layer, which forms an external contact area,

~~and in that~~

- the base layer and the surface layer substantially comprise different materials, and
- the surface layer is present between the contact lamina and the first main connection and between the contact lamina and the semiconductor chip.

2. (Previously Presented) The power semiconductor module as claimed in claim 1, wherein

- the base layer comprises Ni and has a thickness of approximately 1 μm to 15 μm .

3. (Previously Presented) The power semiconductor module as claimed in claim 1, wherein

- the surface layer has a thickness of approximately 0.1 μm to 5 μm .

4. (Currently Amended) A power semiconductor module comprising

- at least one semiconductor chip made of a semiconductor material and having first and a second main electrodes,
- first and second main connections,
- a contact lamina in electrical contact with the first main electrode and the first main connection,
- the contact lamina containing an alloying partner capable of forming a an eutectic between the alloying partner and the semiconductor material,
- the contact lamina being coated with an electrically conductive protective layer,

wherein

- the protective layer has at least one electrically conductive base layer applied on the contact lamina, and
- an electrically conductive surface layer, which forms an external contact area,
- the surface layer substantially comprises Ru,
- an electrically conductive intermediate layer is provided between the surface layer and the base layer, said intermediate layer substantially comprising Au and having a thickness of approximately 0.2 μm , and
- the base layer has a thickness of 5 μm to 12 μm .

5. (Previously Presented) The power semiconductor module as claimed in claim 1, wherein

- the semiconductor chip internally has an IGBT structure or a diode structure.

6. (Previously Presented) The power semiconductor module as claimed in claim 1, wherein

- the base layer comprises a good covering material, and in that

- the surface layer comprises a material having one or more of the following properties:
 - a non-oxidizable, exhibiting little chemical reactivity,
 - b does not react chemically with a first electrode metallization of the first main electrode and exhibits neither contact corrosion nor material diffusion,
 - c has a low coefficient of friction,
 - d can be deposited at temperatures at which the contact layer is not damaged or deformed.

7. (Previously Presented) The power semiconductor module as claimed in claim 2, wherein the thickness of the base layer is approximately 2 μm to 8 μm .

8. (New) The power semiconductor module as claimed in claim 1, wherein the surface layer encircles the contact lamina.

9. (New) The power semiconductor module as claimed in claim 1, wherein the surface layer encloses the contact lamina.

10. (New) The power semiconductor module as claimed in claim 1, wherein the surface layer is between the contact lamina and the first main electrode of the semiconductor chip.